EXHIBIT 2

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MASSACHUSETTS

CYTOLOGIX CORPORATION,
Plaintiff,
v. Civil No. 04-11783 (RWZ)

VENTANA MEDICAL SYSTEMS, Inc.,
Defendants.
_____/

C O N F I D E N T I A L

VIDEOTAPED DEPOSITION OF ANDREW GHUSSON

BE IT REMEMBERED: that pursuant to notice, and on Thursday, September 8, 2005, between 9:07 a.m. and 1:22 p.m. of said day, before me, Deborah Mayer, CSR lic. no. 9654, personally appeared ANDREW GHUSSON, called as a witness by Plaintiff herein, at One Market Street, Suite 3300, San Francisco, CA 94105, and, being by me first duly affirmed, was examined as a witness in said cause.

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Q. When staining is going on, does that mean a run is going on?
A. Yes.
Q. What aspects of the -- of this concept did you think did not meet the initial design goals?
A. I didn't believe it was going to be reliable and reproducible.
Q. Can you explain your concerns --
A. Yes.
Q. -- that you had at the time?
A. Yes. My position at the time was that the robotic arm was not -- we were not going to be able to control the motor motion of that arm as precisely as we needed to, to be able to hit the bottle of reagent, aspirate it, return to the slide position, dispense, and then wash within these pre-determined time frames allowed by the -- by the recipe. And so, that was my position at the time.
Q. Did you overcome that problem, or -- strike that. Does the Benchmark XT accomplish the goal?
THE WITNESS: The Benchmark XT accomplishes the goal, yes.
BY MR. ZELIGER:
Q. How did the development team overcome your concerns?

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A. We ended up abandoning that approach. We came up with a different approach that we ended up implementing.
Q. What's the different approach that you wound up implementing?
A. We went to dispensers instead of bottles, which would free up some time because you don't have the probe that needs to go and as precisely hit the location of the bottle, aspirate from it, dispense, and then go wash itself before going to the next sample, next reagent.
Q. What is a dispenser?
A. A dispenser, as we refer to at Ventana on the XT instrument, is a disposable plastic device that contains 250 MLs of reagent, and is actuated mechanically to dispense, approximately, a 100 microliter sample onto a target and then re-charge itself by spring-loaded mechanism inside the dispenser.
Q. Okay. What happened next in the development of the XT?
A. We ended up building several iterations of the bread boards. And then when we found one that we --
Q. I'm sorry, I didn't catch that term; bread boards? What does "bread board" refer to?
A. A bread board is a system that engineers cobble together; it doesn't necessarily look like the final product will but functions -- performs the function, and it

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could be several different bread boards that perform different functions that are eventually integrated into the system.
Q. Did you retain those bread boards?
A. For a given period of time we retained them, yes.
Q. Do you have them any longer?
A. No, we do not.
Q. Did you make any recordings of those bread boards?
A. Not that I can recall.
Q. Okay, please continue.
A. Um, I forgot where I was.
MR. SHULMAN: With what?
BY MR. ZELIGER:
Q. With the development. You said you generated th bread boards, and I interrupted you and asked you what those were.
A. Yes. We produced bread boards, kept iterating until we were happy with the results we knew we could produce reliably. Then we built prototype systems that were used for validation and verification, and subsequentl validation by, and simulated customer laboratories, and then we were done.
Q. How long did that process take? And when I say "that process", from the initial meeting with your staff

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until the point that you've now said we're done?
A. Approximately a year.
Q. What are the dates at the front end of that span?
A. I think we began discussing the XT concept in the fall of 2001, and so about a year later, we were done.
Q. When did you commence development of the Benchmark LT?
A. I don't recall the exact time.
Q. Do you recall just in reference to the XT's development? In other words, was it during the XT development, or was it later?
A. It was later.
Q. What was the impetus? Why did you develop the LT?
A. Marketing asked for a 20-slide system instead of the 30-slide system that the XT produced.
Q. Are there other differences between the XT and the LT system, other than their capacity?
A. There's some physical differences in terms of labelling. I don't believe that there's any other differences other than capacity.
Q. When you're developing an instrument, do you do practice runs on actual tissue samples?
A. Um, yes.
Q. Can you describe that for me?

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A. That's the end result of our output for the customer, is an adequately stained tissue sample on a slide. And so, during development, at some point, you have to get into the verification process to verify that the system meets the intended design requirements, and that is how that's verified.
Q. Who was involved in the verification process for the Benchmark XT?
A. There's a whole host of people. My engineers obviously were still involved; there was some scientists that also became involved at that time.
Q. Do you recall who?
A. Sue Pierce; Chad Wilkinson I believe was involved at that time; I could be wrong about Chad. Maybe he came later. I don't recall specifically any other names.
Q. Is Sue Pierce a scientist?
A. I'm not sure what her educational background is.
Q. But is she one of your engineers?
A. No, she's not.
Q. What does Chad Wilkinson do?
A. He's a systems integrator scientist. I don't know exactly what his title is.
MR. ZELIGER: Okay, why don't we take a short break.
VIDEOGRAPHER: Videotape deposition off record

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at 10:12 a.m.
VIDEOGRAPHER: Videotape deposition back on record at 10:29 a.m.
BY MR. ZELIGER:
Q. What are the differences between the Benchmark XT and the Benchmark?
A. There are many differences. I can try to recount some. Some of the differences are the capacity, the fact that the Benchmark has 20 slides, the Benchmark XT has 30; reagent capacity, the Benchmark has 25 dispensers, the XT has 35; the Benchmark XT has the capacity to run both IHC and ISH testing simultaneously, due to the increased capacity.
There are some performance differences as well in that the XT, because the slides don't move once they're fixed in place and the run begins, there's no motion, and so it tends to be more robust, more reliable. When a sample is aspirated on top of the glass slide, the sample sits. With the Benchmark, there's constant motion, and the fluid bolus can move or be pushed off, or it can wick off. Sometimes if the slides are misplaced slightly by the user on the Benchmark, because it's rotating, it can cause a crash because once it's misplaced a little bit, the rotation causes it to get out of position.
The XT doesn't have that problem; and a lot of

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the differences the Benchmark has, because the slide sample is moving, the slides are moving in a rotational -- if there's any alignment and there's always -- or misalignment, and there's always misalignment in physical nature, nothing's perfect -- because it rotates, it tends to do a wobbling effect.
And so, the location of the fluid in relation to the sample keeps changing. Sometimes part of the sample is dry; it doesn't have the reagent on it, so it affects the stain quality which is the end result. And so, we found that once we developed the XT that the end result, the stained tissue sample, was superior to that of the Benchmark.
Q. Are there any other differences you can think of now?
A. Not that I can think of right now. But there -- I'm sure there are many.
Q. Does the Benchmark XT process samples mounted on microscope slides?
A. Yes.
Q. Does the Benchmark LT process samples on microscope slides?
A. Yes.
Q. Does the Benchmark XT hold two or more microscope slides on a platform?

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A. Uh, yes.
Q. Does the Benchmark LT hold two or more microscope slides on a platform?
A. Yes.
Q. Does the Benchmark XT contain heating elements that are under independent electronic control?
MR. SHULMAN: I object to the form of the question. The "independent electronic control" is a term from the patent claim. I mean, you can answer it if you can, but it hasn't been interpreted by the Court.
BY MR. ZELIGER:
Q. Do you understand the term "independent electronic control"?
A. I don't know what it means in relation to the patent claim or any --
Q. You understand what the term means?
A. I understand what independent temperature control would mean within the context of anything.
Q. What does it mean in the context of anything?
A. That temperature can be controlled independently, one thing from another.
Q. Using that definition, does the Benchmark XT contain heating elements under independent electronic control?
MR. SHULMAN: Well, we talked about independent

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temperature control, not electronic control.
THE WITNESS: Can you repeat the question?
BY MR. ZELIGER:
Q. Using your -- do you understand the term "independent electronic control"?
A. I guess I could give you a definition of what independent electronic control may mean, but within the context of any patents or anything, I can't -- I can't give you what the intent was.
Q. I'm asking you if you, personally, understand what independent electronic control means.
A. Yeah, I can give you my definition, I think.
Q. What is your definition of independent electronic control?
A. That something can be controlled electronically, independently of something else.
Q. Does the Benchmark XT contain heating elements under independent electronic control?
MR. SHULMAN: As using his definition?
THE WITNESS: As using my definition, which is the way I would define it, I'm not aware of what is intended in the patent, the Benchmark XT can control heating elements independent of one another in some way but dependent in other ways, and that is done electronically, yes.

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BY MR. ZELIGER:
Q. Does the Benchmark XT contain heating elements under independent electronic control that are capable of heating some slides to different temperatures than other slides?
A. There is some independent electronic controls in the heater circuitry, but there's also some common electronic controls in the heater circuitry. And the heater heating pads can be controlled to different temperatures, yes.
Q. Such that slides can be heated to other temperatures than other slides?
A. Within the context of the XT, yes.
Q. Is that also true of the LT?
A. LT and XT have that in common, yes.
Q. Does the Benchmark XT dispense liquid from the a dispenser onto the slides?
A. Uh, yes; from what Ventana calls a dispenser, the disposable dispenser device.
Q. Does the Benchmark LT dispense liquid from the dispenser onto the slides?
A. The XT and the LT have that in common, yes.
Q. Does the Benchmark XT heat one slide on a platform to a different temperature than another slide?
A. Um, yes.

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Q. Does the Benchmark LT heat one slide on the platform to a different temperature than another slide?
A. Both instruments have that in common, yes.
Q. In the Benchmark XT, does each heating element heat only one slide?
A. One slide at a time, yes.
Q. And in the LT, likewise, does each heating element heat only one slide at a time?
A. Yes.
Q. Are you familiar with the concept of relative motion?
A. Definition, you mean in physics? Relative motion?
Q. Would it mean -- does that mean something to you when I say relative motion?
A. Yes.
Q. What does it mean to you?
A. Means to me that something's moving relative to something else.
Q. Can you give me an example of something moving relative to something else?
A. Those cars are moving relative to that bridge.
Q. Okay, and you're pointing out the window to the Bay Bridge I think it's called; is that correct?
A. I am.

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MR. ZELIGER: Maybe we can get a stipulation we're looking at the Bay Bridge.
THE WITNESS: We're looking at the Bay Bridge, believe it's called the Bay Bridge, and the cars are moving relative to the bridge.
BY MR. ZELIGER:
Q. Now, the Bay Bridge has two levels, does it not?
A. Yes.
Q. And -- my sense of direction is a bit confused at the moment, but on the top --
MR. SHULMAN: It goes East-West.
BY MR. ZELIGER:
Q. So on one level, the cars are going East?
A. I hadn't noticed that, yes.
Q. And on the other level, the cars are going West?
A. Apparently, yes.
Q. Are the cars moving relative to each other?
A. Yes.
Q. And is each bound lane of cars moving relative to the Bridge?
A. Each lane -- the east lane is moving relative to the Bridge, and the west lane is moving relative to the bridge.
MR. SHULMAN: You mean the lane or the cars in the lane?

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magnetism, and heat transfer, and that's considered physics as well; so, you know, several years.
Q. And in those several years of studying physics you did not encounter any one or any example of a moving object as the point of reference?
A. Not that I can recall.
Q. Okay. Let me -- let's go off for a moment, mark a bunch of things. I think it will speed things up.
THE WITNESS: Sure.
VIDEOGRAPHER: Videotape deposition off record at 10:44 a.m.
VIDEOGRAPHER: This concludes tape 1, volume 1, in the deposition of Andrew Ghusson.
VIDEOGRAPHER: Videotape deposition back on record at 10:48 a.m. This marks the beginning of tape 2, volume 1, in the deposition of Andrew Ghusson.
BY MR. ZELIGER:
Q. Does Ventana do quality control testing at the facilities in Tucson?
A. That's not my area, but yeah, I believe we do.
Q. Do folks at Ventana actually use a Benchmark LT to stain slides?
A. Um, we use Benchmark LTs to stain slides, yes.
Q. Do you also use the Benchmark XT to stain slides?
A. Yes.

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Q. Can you describe for me how one uses the Benchmark XT to stain a slide or set of slides? Can you take me through the steps?
A. I can take you through the steps to the best of my knowledge; I'm not an expert user familiar with the design of the system. The operator approaches the XT or LT with their samples and loads them onto -- they pull the drawer open, load them onto each slide position. They close the drawer. Then they go and get reagents and load them onto the carousel on top. They pull out the bulk reagents on the bottom and insure that they're full; if not, fill them up. Make sure that the waste tank is not full, or empty enough to be able to accommodate the waste from the coming run. They go into the user interface, which is a Windows-based custom Ventana user interface, and they load the run information in there as to what protocols they want to run on each sample and tell the instrument what sample they're -- they've loaded. And then they initiate the initialization process.
Q. How do they initiate the initialization process?
A. Through the user interface, they click on a button with a mouse.
Q. What does the button say?
A. I believe the button says "run", which tells the instrument to begin the initialization process in

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preparation for a run. And then the instrument, at that time, if the compressor is not on, comes on, pressurizes the system, which the pressure is used for different things, for lifting the drawer with the slides on it into place where it is held against kinematic mounts to hold it precisely in place so that there's no motion caused by vibration or alignment, and there's 40 pounds per square inch of pressure in four locations against that to hold it in place very, very securely.
Q. When the drawer lifts up, are the slides moving relative to the reagent dispenser?
A. When the drawer lifts up during the initialization process, yes; it's moving in a vertical direction about two inches.
Q. So that's movement relative to the liquid dispenser?
A. That is vertical movement during the initialization process, that's correct.
Q. Is that movement relative to the liquid dispenser?
A. The vertical movement that happens during that initialization process is relative to everything else, and including the dispensers, yes. It's also relative to the floor, etcetera.
Q. And that occurs after the operator has hit the

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start-run button on the interface?
A. It's -- it's immediately after the operator initiates the initialization process that needs to occur before the run begins.
Q. What was the -- the slides lift up relative to the reagent dispenser after the operator hits the start-run key; is that correct?
MR. SHULMAN: I object. That wasn't his testimony. He didn't say start-run, he said hit the "run" button.
BY MR. ZELIGER:
Q. What does the button say on the interface?
A. I believe that the button says "run".
Q. Does the -- do the slides move relative to the liquid dispenser after the operator hits the run button on the interface?
A. After the operator hits the run button on the interface, the initialization process begins where the entire tray containing the slides moves vertically by two inches against its fixed position in preparation for the run. And that is relative to the dispenser, yes.
Q. Okay, what happens next?
A. Next, the instrument begins to initialize itself. The operator is asked to verify that things are in place by checking off a couple of things on a checklist on the

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MR. ZELIGER: You may answer.
THE WITNESS: In my mind, there are some important differences between having the sample move and having the reagent dispenser move.
MR. ZELIGER: Would you still like to take a break?
MR. SHULMAN: Yeah, so you can learn some manners.
MR. ZELIGER: Let's take a break.
VIDEOGRAPHER: Videotape deposition off record, 11:24 a.m.
(Lunch recess.)
VIDEOGRAPHER: Videotape deposition back on record at 1:31 p.m.
BY MR. ZELIGER:
Q. Mr. Ghusson, does the liquid dispenser on the Benchmark XT move?
A. The liquid dispenser on the reagent carousel moves, yes.
Q. Does the liquid dispenser on the Benchmark LT move?
A. Yes, they have that in common.
Q. Does the liquid dispenser on the Benchmark XT move relative to the slide samples?
A. Yes, it does.

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Q. Does the liquid dispenser on the Benchmark LT move relative to the slide samples?
A. Yes, it does.
Q. Who trains new customers at Ventana on the use of the Benchmark XT or Benchmark LT?
A. Customer training department.
Q. Who's the head of the customer training department?
A. I think the name is Donna Lawson; I'm not sure if she's the head or not, but she's involved in that process.
Q. In the context of the Benchmark XT, when is the processing of a slide sample complete?
A. At the end of the run, the processing is completed as far as the Benchmark is concerned.
Q. If a person using the Benchmark XT uses a manual titration step, when is the process of the slide sample complete?
A. The titration process?
Q. The entire process?
A. Well, again, the Benchmark does -- the Benchmark run is a composition of many processes, and there are processes post the Benchmark XT's run. After the run is completed, there are things that are done to the slides off-line that the operator does as well, and that's referred to as processing. And the titration step is also

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processing that interrupts the run in order to be performed by the operator.
Q. If someone is using a manual titration step as part of the overall processing of a slide sample, when is the staining complete?
A. Um, I'm not sure.
Q. Who could I ask at Ventana to get that question answered?
A. That would be Patrick Roche.
Q. What's Patrick Roche's position?
A. He's Senior Director of Product Development in Life Sciences.
Q. What are the processes that continue after a run is completed on the Benchmark XT?
A. After a run is completed on the Benchmark XT, the operators take the slides and they have to coverslip them. And there's a multi-step process for running down slides, dehydrating the slides; it's called running down into a solvent, like Xylene, and then those are -- the slides are taken and put into either a coverslipping instrument, or are coverslipped manually by hand on the bench. Following that step, then they're ready to be presented to a pathologist, and that staining process and coverslipping process is said to be complete.
Q. If someone uses a manual titration step as part

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of the overall processing of a slide sample, when does the -- when do those last steps that you just referred to occur?
A. The running-down process and coverslipping process?
Q. Yes?
A. That occurs at the end, after the staining is completed.
Q. And that's after the manual titration step?
A. Manual titration step, to my understanding, is not a common part of the process, but it is a process that can be injected within all these subset processes, or the whole thing is done manually or on a Benchmark; you could do it all manually, or you could interrupt a run to do your manual titration on a Benchmark XT.
Q. And then resume automated processing?
A. And then you could go ahead and re-start the run and resume the processing, yes.
Q. Can you describe for me the mechanics of how slides are heated on the Benchmark XT?
A. They're heated by conduction. Definition of conduction?
Q. Not a definition, but can you tell me a little bit more about how it works on the Benchmark XT?
A. There's a heating -- heated thermal pads on the